

This listing of claims will replace all prior versions, and listing, of claims in the application:

**Listing of Claims:**

Claim 1 (currently Amended) A method of image filtering, comprising:

(a) computing a modified auto-correlation in a horizontal ~~single~~-direction for each pixel in an image, wherein the modified autocorrelation coefficient is computed utilizing:

$$\rho = R_{xx}(1)/(R_{xx}(0) + \delta);$$

(b) filtering said image with a lowpass filter, wherein said filtering adaptively changes according to the computed modified auto-correlation; and

(c) interpolating said image and said filtered image from step (b) wherein said interpolating at said each pixel depends upon said modified auto-correlation in said horizontal ~~single~~-direction.

Claim 2 (previously Amended) The method of claim 1, further comprising:

(a) after steps (a)-(c) of claim 1 repeating steps (a)-(c) of claim 1 with said horizontal ~~single~~-direction replaced by a second direction, said second direction perpendicular to said ~~sin~~ horizontal ~~single~~-direction; and with said image of step (c) replaced by said interpolated image using said modified auto-correlation in said horizontal ~~single~~-direction.

Claim 3 (original) The method of claim 1, wherein:

(a) said modified auto-correlation of step (a) of claim 1 is  $R_{xx}(1)/(R_{xx}(0) + \delta)$  where  $R_{xx}(\cdot)$  is the auto-correlation function for the pixel values in an interval about said each pixel and with the DC component removed, and where  $\delta$  is a parameter.

Claim 4 (original) The method of claim 3, wherein:

(a) said interpolating of step (c) of claim 1 depends upon the amount  $R_{xx}(1)/(R_{xx}(0) + \delta)$  of claim 3 exceeds a threshold.

Claim 5 (original) The method of claim 1, wherein:

(a) said image is a color channel of a color image.